

**2005**

**Medford Fire Weather  
Operating Plan**

Medford Fire Weather  
2005 Annual Operating Plan

## **LOCATION**

4003 Cirrus Drive  
Medford, Oregon 97501

Medford Fire Weather is located at the Medford National Weather Service Office near the Rogue Valley Airport in Medford Oregon. The office maintains 2 advanced meteorological response units (AMRS) with 2 laptop computers with modem for on-site support of wildfires. Fire weather forecasts and other products are disseminated to state and federal agencies through AWIPS (NWS Communications systems), WIMS and through our homepage.

The homepage address is: <http://www.wrh.noaa.gov/mfr>

## **HOURS**

24 hours a day, year round

Meteorologists are on duty 24 hours a day, 7 days a week. Additional forecasters will be brought in to staff for additional projects, severe weather, etc. However, under the provisions of the National Fire Weather Agreement, special service provided by the Medford office will be done on a reimbursable basis.

## **PHONE NUMBERS**

Primary Fire Weather.....541-776-4332  
Secondary Fire Weather.....541-776-4326  
Fax.....541-776-4333

## **STAFF**

The Medford office is staffed with 13 full-time meteorologists. All forecasters participate in producing fire weather forecasts after each has completed the training, which includes correspondence course, computer-based Fire Weather Training Module, mesoscale analysis, climatological and terrain familiarization, and spot forecast training.

### **Management staff**

- John Lovegrove, Meteorologist in Charge
- Dennis Gettman, Science and Operations Officer (IMET)
- Ryan Sandler, Warning and Coordination Meteorologist

#### Forecast staff

- Frederic Bunnag Senior Meteorologist / Fire Weather Program Leader (IMET)
- Michael Stavish Senior Meteorologist
- Michael O'Brien Senior Meteorologist
- Jim Reynolds Senior Meteorologist
- Jay Stockton Senior Meteorologist
- Mark Berteau Meteorologist
- Robert Cramp Meteorologist
- Rick Holtz Meteorologist
- Dan Mundell Meteorologist
- Sven Nelaimischkies Meteorologist
- Dan Weygand Meteorologist

### **FORECAST SERVICES**

#### **FIRE WEATHER AND LAND MANAGEMENT FORECASTS**

The Land Management Forecast is issued during the off-season, usually from mid-October to around May. The forecast is available on the homepage once daily by 1500 local time. The frequency of the Land Management Forecast and the forecast elements may be increased as the fire season approaches. The Fire Weather Program manager will survey the user agencies throughout the off season to determine when extra forecasts are needed.

During the fire season, the Fire Weather Forecasts will be issued twice daily at 0730 and 1500 PDT. The forecast follows the national standard format introduced during the 2001 fire season. NFDRS zone trend forecasts for specific meteorological parameters are issued with the afternoon Fire Weather Forecast. When necessary, trend forecasts may be updated on the morning Fire Weather forecast on the following day.

The Medford Forecast Office will activate the Internet fire weather briefing around the middle of May and continue through the end of the fire season. The forecaster on duty will narrate the briefing and the briefing time will be determined according to agency needs. Every fire and land agency is encouraged to dial into the conference call and ask questions. The graphics for the briefing can be accessed via the Fire Weather Section of the homepage under the Fire Weather Briefing subsection. The dial-in phone number will be provided approximately one week before the briefing starts. Commencement time of this call will be coordinated with the fire agencies.

## **FIRE WEATHER WATCHES AND RED FLAG WARNINGS**

Fire Weather Watches and Red Flag Warnings will be issued when the following weather criteria are expected, in conjunction with certain fuel situations.

Fuel Situations that must be met are:

- 1000 hour fuel moisture < 15%
- Live fuel moisture 120% or less
- Annuals are cured.

Weather Criteria that must be met are:

- A. Thunderstorms with little or no precipitation.  
Lightning occurrence must be at least scattered in coverage. Generally, rainfall should be less than 0.25 inch for the Cascades/Siskiyou Mtns and west side, and less than 0.10 inch for zones east of the Cascades.
- B. Strong Winds with low humidity generally associated with the marine push or a dry cold front.

### Zones 616 617 620 621 622 623.

- Min RH < 15% AND 10 minute sustained wind 10 mph

### Zones 616 and 617.

- Emigrant RAW and Roseburg METAR (KRBG) reporting above conditions for 2 hours.
- These two zones are to be verified as a block.

### Zone 620.

- Two key stations reporting above conditions for 2 hours.  
Key stations: Illinois Valley, Provolt, Onion and Merlin RAWS
- Sexton Summit METAR (KSXT) may also be used but winds must be adjusted to 10 minute average.

### Zone 622.

- Two key stations reporting above conditions for 2 hours.  
Key stations: Evans Valley, Star and Buckhorn RAWS.
- Medford METAR (KMFR) may also be used but winds must be adjusted to 10 minute average.

Zones 621 and 623.

- Two key stations reporting above conditions for 2 hours.  
Key stations: Zim and Parker Mountains RAWS in Oregon, and Slater Butte and Crazy Peak RAWS in northern California.
- These two zones are to be verified as a block.

Zone 624.

- Min RH < 15% AND 10 minute sustained wind 15 mph.
- Two key stations reporting above conditions for 2 hours.  
Key stations: Calimus, Chiloquin, Coffee Pot, Gerber, Strawberry and Summit.
- Kingsley Field Metar (KLMT) may also be used but winds must be adjusted to 10 minute average.

Zone 625.

- Min RH < 10% AND 10 minute sustained wind 20 mph
- Min RH < 15% AND 10 minute sustained wind 25 mph
- Min RH < 20% AND 10 minute sustained wind 30 mph
- Two key stations reporting above conditions for 2 hours.
- Key stations: Fish Fin, Rock Creek, Catnip and Wagontire RAWS (Zone 636).
- Lakeview AWOS Metar (KLKV) may also be used but winds must be adjusted to 10 minute average.

- C. Offshore East Wind Event resulting in strong winds and low relative humidity at night (2200 to 0600)

Zones 617.

- RH Recovery < 30% AND 10 minute sustained wind 10 mph.
- Sugarloaf RAW and Emigrant RAWS of zone 608 (Portland WFO) reporting the above conditions for 2 hours.

Zones 618.

- Redmound RAWS reporting RH Recovery < 25% AND 10 minute sustained wind 15 mph for 2 hours.

Zones 619 and 620.

- RH Recovery < 30% AND 10 minute sustained wind 15 mph.

Zone 620.

- Onion RAWS or Sexton Summit METAR (KSXT) reporting above conditions for 2 hours.
- METAR wind at KSXT must be adjusted to a 10-minute average value.

Zone 619.

- Quail Prairie or Bald Knob RAWS reporting above conditions for 2 hours.
- In case where neither of the above RAWS is reporting, the Red Flag Event is assumed to be occurring in zone 619 if zones on both sides of its border (618/620) are reporting Red Flag condition.

Zones 621, 622, 623.

- RH Recovery < 25% AND 10 minute sustained wind 10 mph.
- Two key stations reporting above conditions for 2 hours.  
Key stations: Evans Valley, Zim, Parker Mountain and Buckhorn.
- These three zones are to be verified as a block.

D. Very Dry and Unstable Airmass

- Haines Index forecast of 6 in conjunction with extremely dry fuel.  
Forecasters will coordinate with the fire agencies when Haines Index 6 is forecast, whether fuel conditions warrant the issuance of the Red Flag Warning.

All Red Flag Warnings will be coordinated with the affected agencies and neighboring fire weather offices, in order to assess fuel conditions and general fire danger, before the issuance of a Red Flag Warning. Each issuance, update or cancellation of a Fire Weather Watch or Red Flag Warning will also be relayed by telephone to the dispatch office(s) affected by the watch/warning.

## **SPOT FORECASTS**

Spot forecasts are available year-round to federal land management agencies upon requests for wildfires, prescribed fires, spray projects and other land management activities. Spot forecasts are available to state forestry agencies and local fire departments for wildfire suppression only. Information required by the forecasters is found on WS Form D-1, items 1-12. Spot forecasts may be requested by filling out pertinent information in the Fire Weather Spot section of the Medford Weather Forecast Office homepage. They may also be requested using the WS Form D-1 with the information faxed to the Medford office or relayed by phone.

We strongly encourage the fire agencies to call this office after submitting a spot request to ensure it was received properly. Attempts will be made to notify field personnel when there is a significant change in the expected weather. However, spot forecasts will be updated only when new observations become available, and/or the update is requested by the users. The forecast will be valid for 12 hours after the proposed ignition time. Spot forecasts for wildfire suppression take precedence over normal office routines.

## **FIRE WEATHER ZONES**

### AREA 1...COAST (Zones 615 and 618)

This area extends from the Pacific Ocean to the foothills of the Coast Range, which rises to a crest of 2500 to 4500 feet, about 30 to 40 miles inland.

### AREA 2...UMPQUA BASIN AND UMPQUA FOOTHILLS (Zones 616 and 617)

This area is located between the Coast Range and the crest of the Cascades mountains. The western portion of the area, mainly the Coast Range, varies in elevation between 2000 and 4500 feet, whereas the eastern portion rises to 4000 and 6000 feet with some peaks reaching as high as 8500 feet.

### AREA 3...SOUTHWEST INTERIOR INCLUDING THE CASCADE AND THE SISKIYOU MOUNTAINS (Zones 619-623)

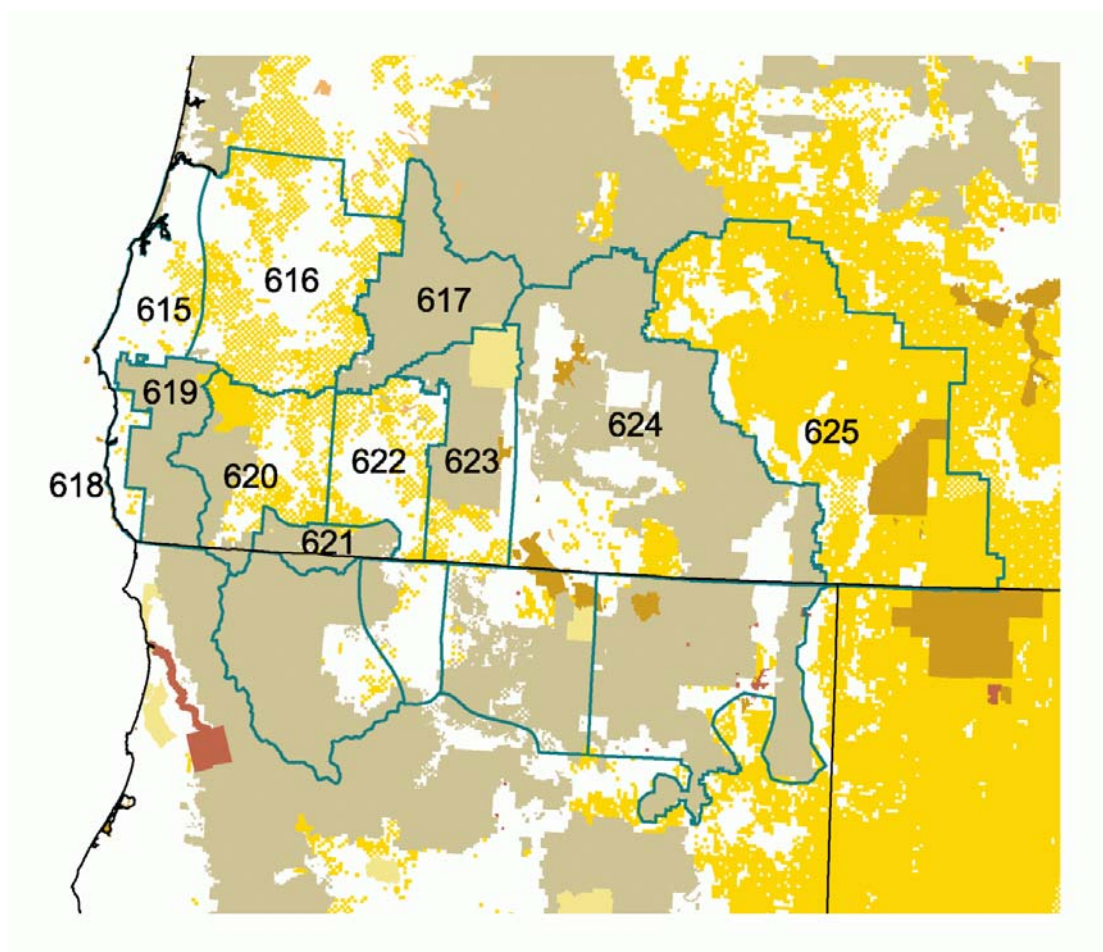
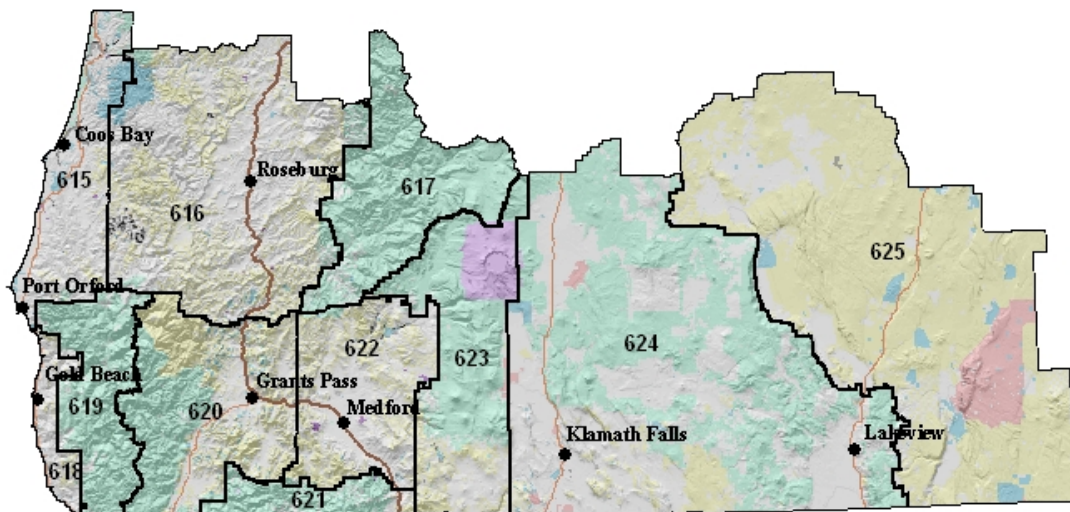
This area has complex terrain. The western boundary begins with the Coast Range, where elevations range from 3000 to 5000 feet. The area includes the Illinois Valley, the Siskiyou Mountain with peaks reaching as high as 7500 feet and the Rogue Basin. The area's eastern boundary includes the Cascade Mountains, where elevations can reach 6500 feet with a few peaks over 8000 feet high. Crater Lake is in the very northeast corner of this area.

### AREA 4...EAST OF THE CASCADE MOUNTAIN (Zones 624 and 625)

This area extends from the eastern foothills of the Cascade Mountains, with the elevation around 5000 feet, across the Klamath Basin with the elevation around 4000 feet. To the

east of the Klamath Basin, this area includes a series of ridges, hills, then the Fremont Mountains and the Warner Valley on the northwest rim of the Great Basin. The eastern boundary of this area closely follows the border between Lake county and Harney county, and is representative of high plateaus with desert-like climate.





## 2005 NWS Medford NFDRS Station Index

ZONE	NAME	Type	NUMBER	OWNER	LAT	LON	ELEV
615	Powers2	R	352814	USFS	42.87	-124.05	286
615	Seven Mile Creek	R	352820	ODF	43.21	-124.32	506
616	Mt. Yoncalla	R	353043	BLM	43.64	-123.33	1799
616	Signal	R	352816	BLM	43.01	-123.78	3294
616	Charlotte Ridge	R	353046	ODF	43.67	-123.94	1220
616	Long Prairie	R	352819	ODF	42.95	-124.22	1180
616	Burnt Mountain	R	353044	BLM	43.22	-123.84	2240
617	Sugarloaf	R	352546	USFS	43.23	-122.40	3500
617	Cinnamon	R	353031	USFS	43.26	-122.15	4636
617	Grandad	R	353036	USFS	43.41	-122.57	2900
617	Toketee	R	353038	USFS	43.23	-122.39	3360
617	Buckeye	R	353040	USFS	43.04	-122.64	2400
618	Flynn Prairie	R	352922	ODF	42.40	-124.39	1625
619	Bald2	R	352813	USFS	42.40	-124.04	3630
619	Quail2	R	352915	USFS	42.24	-124.04	3033
620	Provolt Orchard	R	353120	BLM	42.28	-123.23	1176
620	Calvert Peak	R	352919	BLM	42.78	-123.73	3822
620	Merlin	R	353122	BLM	42.49	-123.40	1040
620	Onion2	R	353114	USFS	42.28	-123.38	4438
620	Agness2	R	352916	USFS	42.33	-124.02	150
621	Squaw	R	353213	USFS	42.07	-123.01	4964
621	Star	R	353214	USFS	42.15	-123.06	1675
621	Buckhorn	R	353230	BLM	42.12	-122.56	2900
621	Illinois Valley Airport	R	353115	BLM	42.11	-123.67	1389
622	Evans Creek	R	353228	BLM	42.63	-123.06	3200
623	Parker	R	353344	BLM	42.11	-122.28	5250
623	Mt. Stella	R	353209	USFS	42.93	-122.43	4715
623	Zim	R	353227	USFS	42.70	-122.39	4106
623	Seldom Creek	R	353339	USFS	42.41	-122.19	4875
623	Dead Indian	R	353225	USFS	42.29	-122.33	5050
624	Timothy	R	353337	USFS	43.20	-121.37	6020
624	Summit	R	353421	USFS	42.20	-120.25	6147
624	Chiloquin	R	353310	USFS	42.58	-121.89	4517
624	Gerber Reservoir	R	353328	BLM	42.20	-121.14	4940

624	Hoyt	R	353343	USFS	42.97	-121.42	5445
624	Coffee	R	353422	BLM	42.53	-120.64	5250
624	Strawberry	R	353423	USFS	42.20	-120.85	5590
624	Calimus	R	353307	USFS	42.63	-121.56	6622
625	Rock Creek	R	353424	FWS	42.55	-119.66	5640
625	Fish Fin Rim	R	353516	BLM	42.47	-119.18	4900
625	Poor Jug	R	353426	USFS	42.93	-120.11	4600
625	Fort Rock	R	353406	BLM	43.43	-120.84	4430